



# STIC Search Report

## Biotech-Chem Library

STIC Database Tracking Number: 191237

TO: Shirley Gembeh  
Location: rem/3A44/3C70  
Art Unit: 1614  
Tuesday, May 30, 2006

Case Serial Number: 10/743354

From: Deirdre Arnold  
Location: Biotech-Chem Library  
REM 1A55  
Phone: 571-272-2532

Deirdre.Arnold@uspto.gov

### Search Notes

#### **RUSH**

- Please check the structure for accuracy.
- In accordance with your request, only the elected species (circled) was searched. There were very few hits. *If you would like to broaden the search by making the structure less defined, please contact me.*
- Beware of false hits on the names in the inventor search.

*Please feel free to contact me if you have any questions or would like to amend the search.*

Thank you for using STIC services.

Regards,  
Deirdre Arnold



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MAY 20 2006

Scientific and Technical Information Center

SEARCH REQUEST FORM

Requester's Full Name: Gembel S Examiner #: 80889 Date: 5/30/06  
Art Unit: 1614 Phone Number: 2-3504 Serial Number: 10,743,354  
Location (Bldg/Room#): Rem 3A44 (Mailbox #): 3C70 Results Format Preferred (circle): PAPER DISK  
\*\*\*\*\*

To ensure an efficient and quality search, please attach a copy of the cover sheet, claims, and abstract or fill out the following:

Title of Invention: Heteroarylalanine acids as integrin receptor

Inventors (please provide full names): Boys et al

Earliest Priority Date: 12/20/02

Search Topic:

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known.

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please search elected compound (circled comp)  
(See attachment in Applicant's response)  
—Thank you. (ASAP if possible)

RECEIVED  
MAY 20 2006  
SCIENTIFIC AND TECHNICAL INFORMATION CENTER  
(STIC)

Search Approved Christopher W 30 May 2006

\*\*\*\*\*

STAFF USE ONLY	Type of Search	Vendors and cost where applicable
Searcher: _____	_____ NA Sequence (#)	_____ STN _____ Dialog
Searcher Phone #: _____	_____ AA Sequence (#)	_____ Questel/Orbit _____ Lexis/Nexis
Searcher Location: _____	_____ Structure (#)	_____ Westlaw _____ WWW/Internet
Date Searcher Picked Up: _____	_____ Bibliographic	_____ In-house sequence systems
Date Completed: _____	_____ Litigation	_____ Commercial _____ Oligomer _____ Score/Length
Searcher Prep & Review Time: _____	_____ Fulltext	_____ Interference _____ SPDI _____ Encode/Transl
Online Time: _____	_____ Other	_____ Other (specify)



# STIC SEARCH RESULTS FEEDBACK FORM

## Biotech-Chem Library

Questions about the scope or the results of the search? Contact *the searcher* or contact:

Mary Hale, Information Branch Supervisor  
571-272-2507 Remsen E01 D86

## Voluntary Results Feedback Form

➤ I am an examiner in Workgroup:  Example: 1610

➤ Relevant prior art found, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature  
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art *not* found:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to STIC/Biotech-Chem Library Remsen Bldg.



What is claimed is:

1. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a compound selected from the group consisting of:

3-(3,5-ditert-butylphenyl)-4-{3-[3-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)propyl]-1,2,4-oxadiazol-5-yl}butanoic acid (TFA salt);

5 3-(3-tert-butyl-5-iodophenyl)-4-{3-[3-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)propyl]-1,2,4-oxadiazol-5-yl}butanoic acid;

3-(3-tert-butyl-5-bromophenyl)-4-{3-[3-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)propyl]-1,2,4-oxadiazol-5-yl}butanoic acid;

10 3-(5-tert-Butyl-2-hydroxyphenyl)-4-{3-[3-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)propyl]-1,2,4-oxadiazol-5-yl}butanoic acid;

3-[3,5-Ditert-butyl-2-(carboxymethoxy)phenyl]-4-{3-[3-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)propyl]-1,2,4-oxadiazol-5-yl}butanoic acid;

3-(5-tert-Butyl-2-methoxyphenyl)-4-{3-[3-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)propyl]-1,2,4-oxadiazol-5-yl}butanoic acid;

15 3-(3,5-Ditert-butyl-4-methoxyphenyl)-4-{3-[3-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)propyl]-1,2,4-oxadiazol-5-yl}butanoic acid;

3-{3-tert-Butyl-5-[2,2,2-trifluoro-1-hydroxy-1-(trifluoromethyl)ethyl]-phenyl}-4-{3-[3-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)propyl]-1,2,4-oxadiazol-5-yl}butanoic acid;

20 3-(3,4-Dichlorophenyl)-4-{3-[3-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)propyl]-1,2,4-oxadiazol-5-yl}butanoic acid trifluoroacetate;

3-(3-Fluoro-4-methylphenyl)-4-{3-[3-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)propyl]-1,2,4-oxadiazol-5-yl}butanoic acid hydrochloride;

3-(4-Phenoxyphenyl)-4-{3-[3-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)propyl]-1,2,4-oxadiazol-5-yl}butanoic acid trifluoroacetate;

25 3-(1-Benzofuran-2-yl)-4-{3-[3-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)propyl]-1,2,4-oxadiazol-5-yl}butanoic acid trifluoroacetate;

3-[4-(Benzyloxy)phenyl]-4-{3-[3-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)propyl]-1,2,4-oxadiazol-5-yl}butanoic acid trifluoroacetate;

30 3-[4-(Methylsulfonyl)phenyl]-4-{3-[3-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)propyl]-1,2,4-oxadiazol-5-yl}butanoic acid trifluoroacetate;

4-{3-[3-(5,6,7,8-Tetrahydro-1,8-naphthyridin-2-yl)propyl]-1,2,4-oxadiazol-5-yl}-3-[4-(trifluoromethoxy)phenyl]butanoic acid trifluoroacetate;



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
 United States Patent and Trademark Office  
 Address: COMMISSIONER FOR PATENTS  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450  
 www.uspto.gov



Bib Data Sheet

CONFIRMATION NO. 9317

SERIAL NUMBER	FILING OR 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
10/743,354	12/22/2003	514	1614	PC31766A
RULE				

## APPLICANTS

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 Hwang-Fun Lu, Ballwin, MO;  
 Mark Russell, Gurnee, IL;  
 Dale P. Spangler, San Diego, CA;  
 Mihir D. Parikh, Chesterfield, MO;

## \*\* CONTINUING DATA \*\*\*\*\*

This appln claims benefit of 60/435,467 12/20/2002

## \*\* FOREIGN APPLICATIONS \*\*\*\*\*

## IF REQUIRED, FOREIGN FILING LICENSE GRANTED

\*\* 04/02/2004

Foreign Priority claimed	<input type="checkbox"/> yes <input type="checkbox"/> no	STATE OR COUNTRY	SHEETS DRAWING	TOTAL CLAIMS	INDEPENDENT CLAIMS
35 USC 119 (a-d) conditions met	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> Met after Allowance	MI	0	5	1
Verified and Acknowledged	Examiner's Signature	Initials			

## ADDRESS

28940

## TITLE

Heteroarylalkanoic acids as integrin receptor antagonists derivatives

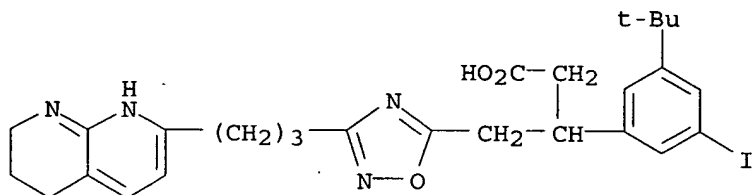
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L3 TRANSFER PLU=ON L1 1- RN : 387 TERMS  
L4 387 SEA FILE=REGISTRY ABB=ON PLU=ON L3  
L5 131 SEA FILE=REGISTRY ABB=ON PLU=ON L4 AND ?NAPHTHYRIDIN?/CNS  
L9 1 SEA FILE=REGISTRY ABB=ON PLU=ON L5 AND I/ELS

=> d ide l9

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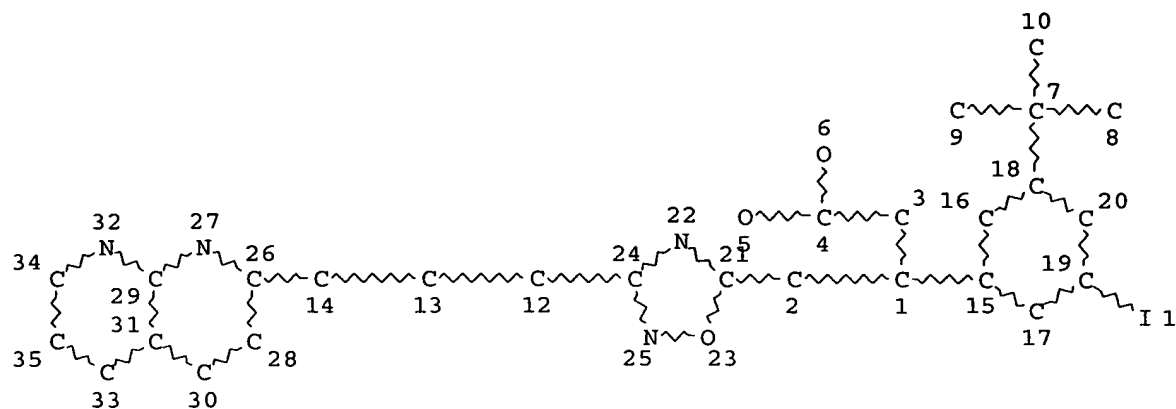
L9 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2006 ACS on STN  
RN 724770-27-8 REGISTRY  
ED Entered STN: 10 Aug 2004  
CN 1,2,4-Oxadiazole-5-butanoic acid,  $\beta$ -[3-(1,1-dimethylethyl)-5-iodophenyl]-3-[3-(1,5,6,7-tetrahydro-1,8-naphthyridin-2-yl)propyl]-(9CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C27 H33 I N4 O3  
SR CA  
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> => d que stat 116  
L14 STR



Page 1-A

11

Page 1-B

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 35

STEREO ATTRIBUTES: NONE

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100.0% PROCESSED 3 ITERATIONS

1 ANSWERS

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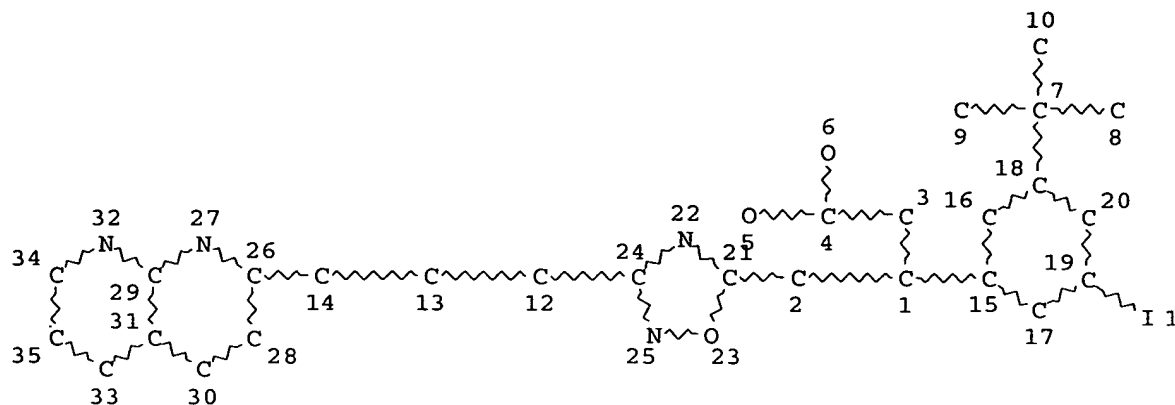
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L5 131 SEA FILE=REGISTRY ABB=ON PLU=ON L4 AND ?NAPHTHYRIDIN?/CNS  
L9 1 SEA FILE=REGISTRY ABB=ON PLU=ON L5 AND I/ELS  
L14 STR  
L16 1 SEA FILE=REGISTRY SSS FUL L14  
L17 0 SEA FILE=REGISTRY ABB=ON PLU=ON L16 NOT L9

=> d que nos 124

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L5 131 SEA FILE=REGISTRY ABB=ON PLU=ON L4 AND ?NAPHTHYRIDIN?/CNS  
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L23 1 SEA FILE=REGISTRY ABB=ON PLU=ON 724770-27-8/RN,CRN  
L24 0 SEA FILE=REGISTRY ABB=ON PLU=ON L23 NOT L9

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L14 STR



Page 1-A

11

Page 1-B

NODE ATTRIBUTES:

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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

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NUMBER OF NODES IS 35

STEREO ATTRIBUTES: NONE

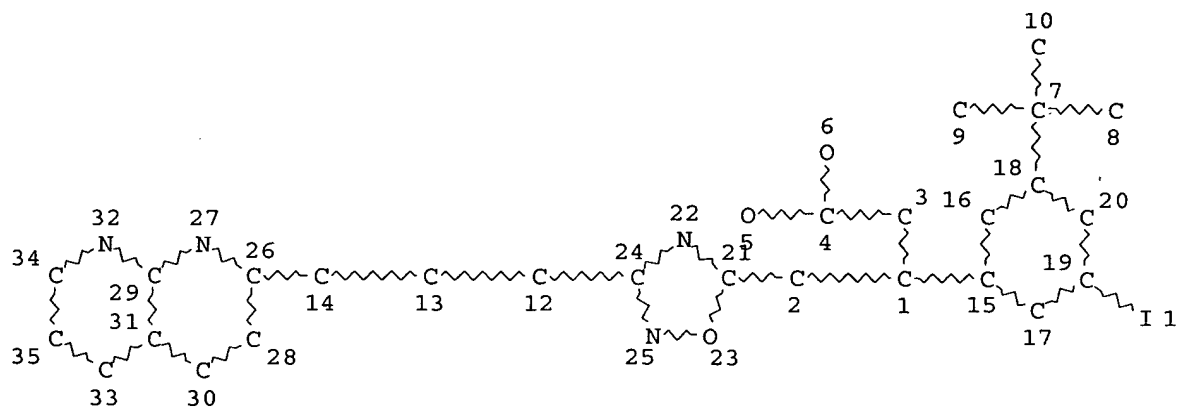
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100.0% PROCESSED 0 ITERATIONS

0 ANSWERS

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L14 STR





Page 1-A

11

Page 1-B

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 35

STEREO ATTRIBUTES: NONE

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100.0% DONE 0 VERIFIED

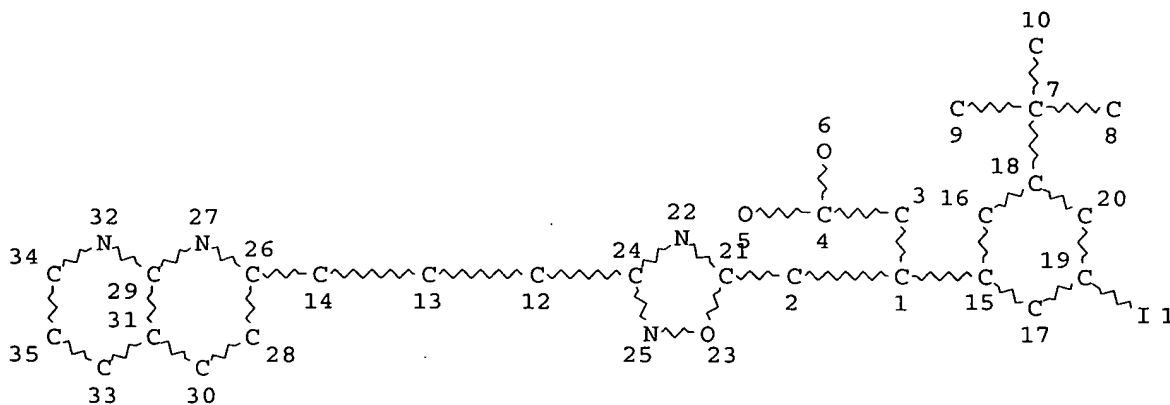
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0 DOCS

SEARCH TIME: 00.00.02

=&gt; d que stat l22

L14 STR



Page 1-A

11

Page 1-B

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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 35

STEREO ATTRIBUTES: NONE

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100.0% PROCESSED

42 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

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FILE 'MARPAT' ENTERED AT 12:20:15 ON 30 MAY 2006

L21 0 S L14 SAM  
L22 0 S L14 FUL  
SAVE TEMP L22 GEM354MAR1/A

FILE 'STNGUIDE' ENTERED AT 12:21:44 ON 30 MAY 2006

FILE 'REGISTRY' ENTERED AT 12:23:18 ON 30 MAY 2006

L23 1 S 724770-27-8/RN,CRN  
L24 0 S L23 NOT L9

FILE 'STNGUIDE' ENTERED AT 12:23:45 ON 30 MAY 2006

FILE 'WPIX' ENTERED AT 12:24:13 ON 30 MAY 2006

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L25 98 S E13-E110/DCSE

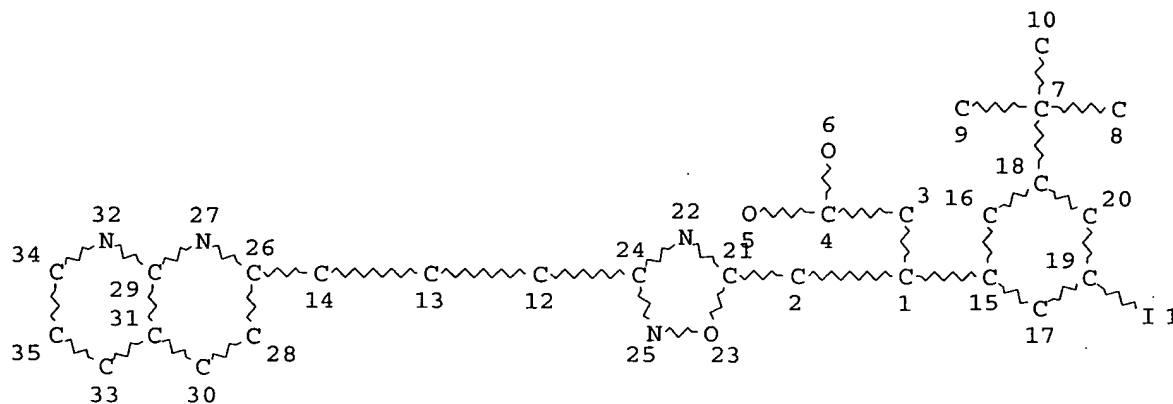
FILE 'STNGUIDE' ENTERED AT 12:25:32 ON 30 MAY 2006

FILE 'WPIX' ENTERED AT 12:26:09 ON 30 MAY 2006

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SELECT L26 1- DCSE  
L27 1 S E111/KW  
L28 0 S L14 SAM  
L29 1 S L14 FUL  
L30 1 S L29/DCR  
SELECT L29 1- SDCN  
L31 1 S E112/DCN  
L32 1 S L27 OR L30 OR L31

=> d que stat 132

L14 STR



Page 1-B

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 35

STEREO ATTRIBUTES: NONE

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L30 1 SEA FILE=WPIX ABB=ON PLU=ON L29/DCR  
L31 1 SEA FILE=WPIX ABB=ON PLU=ON RAEX6A/DCN  
L32 1 SEA FILE=WPIX ABB=ON PLU=ON L27 OR L30 OR L31

=> d his l11

(FILE 'HCAPLUS', TOXCENTER, USPATFULL' ENTERED AT 12:11:11 ON 30 MAY 2006)

L11 3 S L9

=> d que stat l11

L1 1 SEA FILE=HCAPLUS ABB=ON PLU=ON US2003-743354/APPS  
L3 TRANSFER PLU=ON L1 1- RN : 387 TERMS  
L4 387 SEA FILE=REGISTRY ABB=ON PLU=ON L3  
L5 131 SEA FILE=REGISTRY ABB=ON PLU=ON L4 AND ?NAPHTHYRIDIN?/CNS  
L9 1 SEA FILE=REGISTRY ABB=ON PLU=ON L5 AND I/ELS  
L11 3 SEA L9

=> dup rem l11 l18 l20 l22 l32

L18 HAS NO ANSWERS

L20 HAS NO ANSWERS

L22 HAS NO ANSWERS

DUPLICATE IS NOT AVAILABLE IN 'BEILSTEIN, CHEMINFORMRX'.

ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE

FILE 'HCAPLUS' ENTERED AT 13:00:18 ON 30 MAY 2006

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'TOXCENTER' ENTERED AT 13:00:18 ON 30 MAY 2006

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FILE 'USPATFULL' ENTERED AT 13:00:18 ON 30 MAY 2006

CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'WPIX' ENTERED AT 13:00:18 ON 30 MAY 2006

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PROCESSING COMPLETED FOR L11

PROCESSING COMPLETED FOR L18

PROCESSING COMPLETED FOR L20

PROCESSING COMPLETED FOR L22

PROCESSING COMPLETED FOR L32

L68 2 DUP REM L11 L18 L20 L22 L32 (2 DUPLICATES REMOVED)  
ANSWER '1' FROM FILE HCAPLUS

ANSWER '2' FROM FILE USPATFULL

=> file stnguide

FILE 'STNGUIDE' ENTERED AT 13:00:24 ON 30 MAY 2006

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AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: May 26, 2006 (20060526/UP).

=&gt; d ibib ed ab ind hitstr

YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, USPATFULL' - CONTINUE? (Y)/N:y

L68 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 2004:565087 HCAPLUS

DOCUMENT NUMBER: 141:123408

TITLE: Heteroarylalkanoic acids as integrin receptor antagonists

INVENTOR(S): Boys, Mark L.; Schretzman, Lori A.; Tollefson, Michael B.; Chandrakumar, Nizal S.; Khanna, Ish K.; Nguyen, Maria; Downs, Victoria; Mohler, Scott B.; Gesicki, Glen J.; Penning, Thomas D.; Chen, Barbara B.; Wang, Yaping; Khilevich, Albert; Desai, Bipinchandra N.; Yu, Yi; Wendt, John A.; Stenmark, Heather; Wu, Lisa; Huff, Renee M.; Nagarajan, Srinivasan R.; Devadas, Balekudru; Lu, Hwang-fun; Russell, Mark; Spangler, Dale P.; Parikh, Mihir D.; Clare, Michael

PATENT ASSIGNEE(S): Pharmacia Corporation, USA

SOURCE: PCT Int. Appl., 266 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004058254	A1	20040715	WO 2003-US40898	20031222
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2507699	AA	20040715	CA 2003-2507699	20031222
AU 2003299807	A1	20040722	AU 2003-299807	20031222
US 2005043344	A1	20050224	US 2003-743354	20031222
EP 1592421	A1	20051109	EP 2003-800081	20031222
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003017600	A	20051129	BR 2003-17600	20031222
PRIORITY APPLN. INFO.:			US 2002-435467P	P 20021220
			WO 2003-US40898	W 20031222

OTHER SOURCE(S): MARPAT 141:123408

ED Entered STN: 15 Jul 2004

AB The present invention relates to pharmaceutical compns. comprising compds. I [A = (un)saturated and/or (un)substituted 4-8 membered monocyclic or 7-12 membered bicyclic ring, containing 1 to 5 heteroatoms selected from the group consisting of O, N or S; ring A may further contain a carboxamide, sulfone, sulfonamide, or an acyl group; A1 = (un)saturated and/or (un)substituted 5-9 membered monocyclic or 8-14 membered polycyclic heterocycle containing at least one N; or A1 = substituted urea, iminourea or thiourea alicyclic or cyclic analog; Z1 = CH2, CH2O, O, NH, CO, S, SO, CHOH, SO2; Z2 = (un)substituted 1-5 carbon linker optionally containing one or

more heteroatoms; alternatively Z1-Z2 may contain a carboxamide, sulfone, sulfonamide, alkenyl, acyl group, or aryl or heteroaryl ring; X = CO, SO<sub>2</sub>, S, O, substituted amine, substituted CH; Y = CO, SO<sub>2</sub>, substituted amine, etc.; Y5 = C or N; Y3 and Y4 independently = H, halo, (un)substituted-alkyl, -aryl, -alkene, etc.; or Y3 and Y4 together form a (un)saturated and/or (un)substituted 3-8 membered monocyclic or a 7-11 membered bicyclic ring optionally containing heteroatoms; or X and Y3 form a 3-7 membered monocyclic ring optionally containing heteroatoms; Rb = OH, alkoxy, arylamine, etc.], or a pharmaceutically acceptable salt thereof, methods of selectively inhibiting or antagonizing the  $\alpha v\beta 3$  and/or the  $\alpha v\beta 5$  integrin without significantly inhibiting the  $\alpha v\beta 6$  integrin, and methods to prepare I. Thus, e.g., II was prepared in four steps with oxadiazole ring forming via cyclization reaction of amide oxime III with cyclic anhydride IV (preparation given). I antagonize  $\alpha v\beta 3$  integrin with an IC<sub>50</sub> values ranging from 0.1 nM to 100  $\mu$ M in the 293-cell assay. Similarly, I also antagonized  $\alpha v\beta 5$  integrin with an IC<sub>50</sub> values of < 50  $\mu$ M in the cell adhesion assay.

- IC ICM A61K031-4245
- ICS A61P019-02; A61P019-10; A61P027-00; A61P035-00; A61P035-04;  
A61P043-00
- CC 23-16 (Aliphatic Compounds)
- Section cross-reference(s): 1, 28, 63
- ST butanoic acid heteroaryl deriv prepn integrin receptor antagonist;
- alkanoic acid heteroaryl deriv prepn integrin receptor antagonist
- IT Neoplasm  
(humoral hypercalcemia of malignancy; preparation of heteroaryl butanoic acid derivs. as selective inhibitors or antagonists of  $\alpha v\beta 3$  and/or  $\alpha v\beta 5$  integrin receptor)
- IT Eye, disease  
(macula, degeneration; preparation of heteroaryl butanoic acid derivs. as selective inhibitors or antagonists of  $\alpha v\beta 3$  and/or  $\alpha v\beta 5$  integrin receptor)
- IT Neoplasm  
(metastasis; preparation of heteroaryl butanoic acid derivs. as selective inhibitors or antagonists of  $\alpha v\beta 3$  and/or  $\alpha v\beta 5$  integrin receptor)
- IT Angiogenesis
- Antiarteriosclerotics
- Antiarthritics
- Antitumor agents
- Arthritis
- Atherosclerosis
- Drug delivery systems
- Osteoporosis  
(preparation of heteroaryl butanoic acid derivs. as selective inhibitors or antagonists of  $\alpha v\beta 3$  and/or  $\alpha v\beta 5$  integrin receptor)
- IT Artery, disease  
(restenosis; preparation of heteroaryl butanoic acid derivs. as selective inhibitors or antagonists of  $\alpha v\beta 3$  and/or  $\alpha v\beta 5$  integrin receptor)
- IT Eye, disease  
(retinopathy; preparation of heteroaryl butanoic acid derivs. as selective inhibitors or antagonists of  $\alpha v\beta 3$  and/or  $\alpha v\beta 5$  integrin receptor)
- IT Cell migration  
(smooth muscle; preparation of heteroaryl butanoic acid derivs. as selective inhibitors or antagonists of  $\alpha v\beta 3$  and/or  $\alpha v\beta 5$  integrin receptor)

IT Integrins  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
( $\alpha\beta 3$ ; preparation of heteroaryl butanoic acid derivs. as  
selective inhibitors or antagonists of  $\alpha\beta 3$  and/or  
 $\alpha\beta 5$  integrin receptor)

IT Integrins  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
( $\alpha\beta 5$ ; preparation of heteroaryl butanoic acid derivs. as  
selective inhibitors or antagonists of  $\alpha\beta 3$  and/or  
 $\alpha\beta 5$  integrin receptor)

IT 724769-51-1P  
RL: BPN (Biosynthetic preparation); PAC (Pharmacological activity); SPN  
(Synthetic preparation); THU (Therapeutic use); BIOL (Biological study);  
PREP (Preparation); USES (Uses)  
(preparation of heteroaryl butanoic acid derivs. as selective inhibitors or  
antagonists of  $\alpha\beta 3$  and/or  $\alpha\beta 5$  integrin  
receptor)

IT 17004-92-1P  
RL: BPN (Biosynthetic preparation); PUR (Purification or recovery); RCT  
(Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or  
reagent)  
(preparation of heteroaryl butanoic acid derivs. as selective inhibitors or  
antagonists of  $\alpha\beta 3$  and/or  $\alpha\beta 5$  integrin  
receptor)

IT 724770-81-4P 724770-82-5P 724770-83-6P 724770-84-7P 724770-85-8P  
724770-86-9P  
RL: BPN (Biosynthetic preparation); RCT (Reactant); SPN (Synthetic  
preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant  
or reagent)  
(preparation of heteroaryl butanoic acid derivs. as selective inhibitors or  
antagonists of  $\alpha\beta 3$  and/or  $\alpha\beta 5$  integrin  
receptor)

IT 724771-32-8P 724771-34-0P  
RL: BYP (Byproduct); PREP (Preparation)  
(preparation of heteroaryl butanoic acid derivs. as selective inhibitors or  
antagonists of  $\alpha\beta 3$  and/or  $\alpha\beta 5$  integrin  
receptor)

IT 381677-42-5P 724768-22-3P 724768-23-4P 724768-25-6P 724768-27-8P  
724768-29-0P 724768-31-4P 724768-33-6P 724768-35-8P 724768-37-0P  
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 724770-29-0P 724770-31-4P 724770-33-6P 724770-35-8P 724770-37-0P  
 724770-39-2P 724771-75-9P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of heteroaryl butanoic acid derivs. as selective inhibitors or antagonists of  $\alpha\text{v}\beta 3$  and/or  $\alpha\text{v}\beta 5$  integrin receptor)

IT 67-36-7, 4-Phenoxybenzaldehyde 67-64-1, Acetone, reactions 79-19-6, Thiosemicarbazide 105-53-3, Diethyl malonate 105-56-6, Ethyl cyanoacetate 105-58-8, Diethylcarbonate 109-70-6, 1-Bromo-3-chloropropane 110-89-4, Piperidine, reactions 110-91-8, Morpholine, reactions 120-14-9, 3,4-Dimethoxybenzaldehyde 120-57-0, Piperonal 123-90-0, Thiomorpholine 140-88-5, Ethyl acrylate 141-97-9, Ethyl acetoacetate 351-54-2, 3-Fluoro-4-methoxybenzaldehyde 403-54-3, 3-Fluorobenzonitrile 455-19-6, 4-Trifluoromethylbenzaldehyde 461-96-1, 1-Bromo-3,5-difluorobenzene 498-60-2, 3-Furaldehyde 498-62-4, 3-Thiophenecarboxaldehyde 613-92-3 617-90-3, 2-Furonitrile 626-67-5, N-Methylpiperidine 656-42-8, 2,2-Difluoro-1,3-benzodioxole-5-carboxaldehyde 659-28-9, 4-Trifluoromethoxybenzaldehyde 695-34-1, 2-Amino-4-picoline 704-13-2, 3-Hydroxy-4-nitrobenzaldehyde 825-60-5 867-13-0, Triethylphosphonoacetate 1003-60-7, 2-Methyl-5-thiazolecarboxaldehyde 1824-81-3, 2-Amino-6-picoline 2227-79-4, Benzenecarbothioamide 2362-64-3, 4-Methoxythiobenzamide 2521-24-6, 4-Chlorothiobenzamide 2525-16-8 3162-29-6 3453-33-6, 6-Methoxy-2-naphthaldehyde 4265-16-1, 2-Benzofurancarboxaldehyde 4397-53-9, 4-Benzyloxybenzaldehyde 4926-12-9 5164-76-1 5398-77-6, 4-Methylsulfonylbenzaldehyde 5464-11-9, 2-Methylthio-2-imidazoline hydriodide 5693-62-9 5717-37-3, (Carbethoxyethylidene)triphenylphosphorane 6287-38-3, 3,4-Dichlorobenzaldehyde 6610-29-3, 4-Methyl-3-thiosemicarbazide 6938-68-7, 2-Methyl-3-thiosemicarbazide 7311-34-4, 3,5-Dimethoxybenzaldehyde 10203-08-4, 3,5-Dichlorobenzaldehyde 13472-85-0, 5-Bromo-2-methoxypyridine 15128-90-2, 3-Hydroxy-6-methyl-2-nitropyridine 19798-80-2, 4-Chloropyridin-2-amine 19798-81-3, 2-Amino-6-bromopyridine 26690-80-2, tert-Butyl N-(2-hydroxyethyl)carbamate 29335-36-2 29668-44-8 30529-70-5, 2-Chloro-6-methylnicotinic acid 32085-88-4, 3,5-Difluorobenzaldehyde 36437-19-1 52605-49-9, Sarcosine ethyl ester hydrochloride 52771-21-8, 3-Trifluoromethoxybenzaldehyde 54605-72-0 55234-58-7 58885-58-8, tert-Butyl (3-hydroxypropyl)carbamate 63837-11-6, 5-Bromo-2-methylbenzothiazole 64248-62-0, 3,4-Difluorobenzonitrile 64248-63-1, 3,5-Difluorobenzonitrile 65873-72-5, 6-Methoxynicotinaldehyde 71144-35-9, 3-Fluoro-4,5-dihydroxybenzaldehyde 91963-19-8 132123-54-7, 3,4,5-Trifluorobenzaldehyde 135579-85-0, 3-Cyanopropylzinc bromide 177756-62-6, 3-Fluoro-4-methylbenzaldehyde 188815-30-7, 3-Fluoro-5-trifluoromethylbenzaldehyde 193818-28-9 204452-95-9 227938-79-6, 1,8-Naphthyridine-2-butanenitrile 227938-80-9 339555-37-2 381226-86-4 381677-47-0 381677-75-4 689259-14-1 722549-30-6 724770-52-9 724771-55-5 724771-56-6 724771-58-8 724771-60-2 724771-61-3 724771-62-4 724771-63-5 724771-64-6 724771-65-7 724771-66-8 724771-67-9 724771-68-0 724771-69-1 724771-70-4 724771-71-5 724771-72-6 724771-73-7 724771-74-8

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of heteroaryl butanoic acid derivs. as selective inhibitors or antagonists of  $\alpha\text{v}\beta 3$  and/or  $\alpha\text{v}\beta 5$  integrin receptor)

IT 1569-16-0P, 2-Methyl-1,8-naphthyridine 4759-64-2P 6286-69-7P



17005-13-9P 20348-10-1P 20348-16-7P 20567-67-3P 29578-39-0P,  
 3-Bromo-5-fluoroanisole 40288-65-1P 52311-35-0P 55656-25-2P  
 64942-87-6P 68638-67-5P 72505-20-5P, 3-Fluorothiobenzamide  
 89026-79-9P 158471-13-7P 163083-48-5P 243641-39-6P 332884-21-6P  
 381226-84-2P 381226-85-3P 445490-28-8P 477207-32-2P 689259-06-1P  
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 724771-52-2P 724771-53-3P 724771-54-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)

(preparation of heteroaryl butanoic acid derivs. as selective inhibitors or  
 antagonists of  $\alpha\text{v}\beta\text{3}$  and/or  $\alpha\text{v}\beta\text{5}$  integrin  
 receptor)

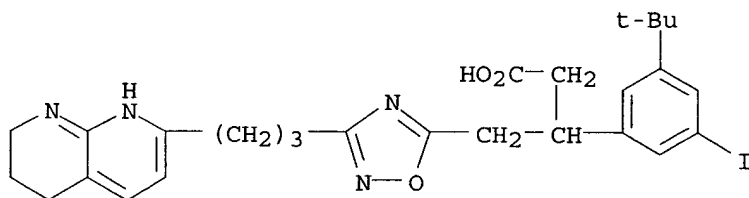
IT 724770-27-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU  
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
 (Uses)

(preparation of heteroaryl butanoic acid derivs. as selective inhibitors or  
 antagonists of  $\alpha\text{v}\beta\text{3}$  and/or  $\alpha\text{v}\beta\text{5}$  integrin  
 receptor)

RN 724770-27-8 HCAPLUS

CN 1,2,4-Oxadiazole-5-butanoic acid,  $\beta$ -[3-(1,1-dimethylethyl)-5-  
 iodophenyl]-3-[3-(1,5,6,7-tetrahydro-1,8-naphthyridin-2-yl)propyl]- (9CI)  
 (CA INDEX NAME)



=> d ibib ab hitstr 2

YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, USPATFULL' - CONTINUE? (Y)/N:y

L68 ANSWER 2 OF 2 USPATFULL on STN

ACCESSION NUMBER: 2005:50544 USPATFULL

TITLE: Heteroarylalkanoic acids as integrin receptor antagonists derivatives

INVENTOR(S): Boys, Mark L., Brighton, MI, UNITED STATES  
 Schretzman, Lori A., East Hanover, NJ, UNITED STATES  
 Tollefson, Michael B., Dardenne Prairie, MO, UNITED STATES  
 Chandrakumar, Nizal Samuel, Grafton, MA, UNITED STATES  
 Khanna, Ish Kumar, Libertyville, IL, UNITED STATES  
 Nguyen, Maria, Ann Arbor, MI, UNITED STATES  
 Downs, Victoria L., Pinckney, MI, UNITED STATES  
 Mohler, Scott B., Chicago, IL, UNITED STATES  
 Gesicki, Glen J., Chicago, IL, UNITED STATES  
 Penning, Thomas D., Elmhurst, IL, UNITED STATES  
 Chen, Barbara B., Glenview, IL, UNITED STATES  
 Wang, Yaping, Acton, MA, UNITED STATES  
 Khilevich, Albert, Buffalo Grove, IL, UNITED STATES  
 Desai, Bipinchandra N., Vernon Hills, IL, UNITED STATES  
 Yu, Yi, Glenview, IL, UNITED STATES  
 Wendt, John A., South Lyon, MI, UNITED STATES  
 Stenmark, Heather, Chicago, IL, UNITED STATES  
 Wu, Hongwei, Buffalo Grove, IL, UNITED STATES  
 Huff, Renee M., Park Ridge, IL, UNITED STATES  
 Nagarajan, Srinivasan Raj, Chesterfield, MO, UNITED STATES  
 Devadas, Balekudru, Chesterfield, MO, UNITED STATES  
 Lu, Hwang-Fun, Ballwin, MO, UNITED STATES  
 Russell, Mark, Gurnee, IL, UNITED STATES  
 Spangler, Dale P., San Diego, CA, UNITED STATES  
 Parikh, Mihir D., Chesterfield, MO, UNITED STATES

PATENT ASSIGNEE(S): Pharmacia Corporation (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005043344	A1	20050224
APPLICATION INFO.:	US 2003-743354	A1	20031222 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-435467P	20021220 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	SENNIGER POWERS LEAVITT AND ROEDEL, ONE METROPOLITAN SQUARE, 16TH FLOOR, ST LOUIS, MO, 63102	
NUMBER OF CLAIMS:	5	
EXEMPLARY CLAIM:	1	
LINE COUNT:	6480	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

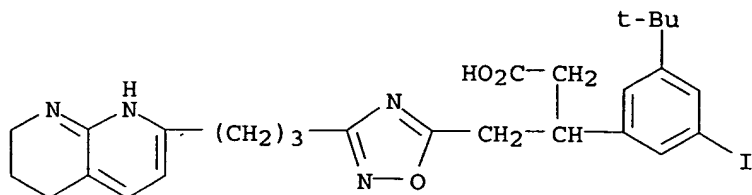
AB The present invention relates to pharmaceutical compositions comprising compounds of the Formula I, or a pharmaceutically acceptable salt thereof, and methods of selectively inhibiting or antagonizing the  $\alpha$ .sub.V $\beta$ .sub.3 and/or the  $\alpha$ .sub.V $\beta$ .sub.5 integrin without significantly inhibiting the  $\alpha$ .sub.V $\beta$ .sub.6 integrin.

IT 724770-27-8P

(preparation of heteroaryl butanoic acid derivs. as selective inhibitors or antagonists of  $\alpha$ v $\beta$ 3 and/or  $\alpha$ v $\beta$ 5 integrin receptor)

RN 724770-27-8 USPTAFULL

CN 1,2,4-Oxadiazole-5-butanoic acid,  $\beta$ -[3-(1,1-dimethylethyl)-5-iodophenyl]-3-[3-(1,5,6,7-tetrahydro-1,8-naphthyridin-2-yl)propyl]-  
(9CI) (CA INDEX NAME)



=> d his 167

(FILE 'HCAPLUS, MEDLINE, BIOSIS, PASCAL, JICST-EPLUS, CABA, LIFESCI, DRUGU, DRUGB, VETU, VETB, WPIX, SCISEARCH, CONF, CONFSCI, DISSABS' ENTERED AT 12:37:36 ON 30 MAY 2006)

L67 11 DUP REM L66 (10 DUPLICATES REMOVED)

=> d que stat 167

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L33      QUE  ABB=ON  PLU=ON  BOYS, M?/AU
L34      QUE  ABB=ON  PLU=ON  SCHRETZMAN, L?/AU
L35      QUE  ABB=ON  PLU=ON  TOLLEFSON, M?/AU
L36      QUE  ABB=ON  PLU=ON  CHANDRAKUMAR, N?/AU
L37      QUE  ABB=ON  PLU=ON  KHANNA, I?/AU
L38      QUE  ABB=ON  PLU=ON  NGUYEN, M?/AU
L39      QUE  ABB=ON  PLU=ON  DOWNS, V?/AU
L40      QUE  ABB=ON  PLU=ON  MOHLER, S?/AU
L41      QUE  ABB=ON  PLU=ON  GESICKI, G?/AU
L42      QUE  ABB=ON  PLU=ON  PENNING, T?/AU
L43      QUE  ABB=ON  PLU=ON  CHEN, B?/AU
L44      QUE  ABB=ON  PLU=ON  WANG, Y?/AU
L45      QUE  ABB=ON  PLU=ON  KHILEVICH, A?/AU
L46      QUE  ABB=ON  PLU=ON  DESAI, B?/AU
L47      QUE  ABB=ON  PLU=ON  YU, Y?/AU
L48      QUE  ABB=ON  PLU=ON  WENDT, J?/AU
L49      QUE  ABB=ON  PLU=ON  STENMARK, H?/AU
L50      QUE  ABB=ON  PLU=ON  WU, H?/AU
L51      QUE  ABB=ON  PLU=ON  HUFF, R?/AU
L52      QUE  ABB=ON  PLU=ON  NAGARAJAN, S?/AU
L53      QUE  ABB=ON  PLU=ON  DEVADAS, B?/AU
L54      QUE  ABB=ON  PLU=ON  LU, H?/AU
L55      QUE  ABB=ON  PLU=ON  RUSSEL, M?/AU
L56      QUE  ABB=ON  PLU=ON  SPANGLER, D?/AU
L57      QUE  ABB=ON  PLU=ON  PARIKH, M?/AU
L58      QUE  ABB=ON  PLU=ON  PHARMACIA/PA,CS,SO
L62      10520 SEA (L33 OR L34 OR L35 OR L36 OR L37) OR (L39 OR L40 OR L41 OR
              L42) OR (L45 OR L46) OR (L48 OR L49) OR (L51 OR L52 OR L53) OR
              (L55 OR L56 OR L57)
L63      215 SEA (L38 OR L43 OR L44 OR L47 OR L50 OR L54) AND L58
L64      94 SEA (L62 OR L63) AND ?INTEGRIN?
L65      85 SEA L64 AND (?INTEGRIN?(L) (?ANTAGON? OR ?INHIBIT? OR ?PROHIBIT?
              OR ?BLOCK? OR STOP? OR DISRUPT? OR INTERRUPT? OR CONTROL? OR
              MODERAT? OR MODULAT? OR ?REGULAT? OR ?PREVENT? OR ?REDUC? OR
              ?IMPED? OR ?SUPPRESS? OR REPRESS? OR RETARD? OR SLOW?))
L66      21 SEA L65 AND (ALKANOIC? OR HETEROALKANOIC? OR ?BUTANOIC?)
L67      11 DUP REM L66 (10 DUPLICATES REMOVED)

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=> d ibib ed ab 167 1-11

YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, BIOSIS' - CONTINUE? (Y)/N:y

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L67 ANSWER 1 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 2006:16564 HCAPLUS
DOCUMENT NUMBER: 144:254037
TITLE: Synthesis of 2,5-thiazole butanoic acids as
        potent and selective  $\alpha\beta 3$  integrin
        receptor antagonists with improved oral
        pharmacokinetic properties
AUTHOR(S): Wendt, John A.; Wu, Hongwei; Stenmark,

```

Heather G.; Boys, Mark L.; Downs, Victoria L.; Penning, Thomas D.; Chen, Barbara B.; Wang, Yaping; Duffin, Tiffany; Finn, Mary Beth; Keene, Jeffery L.; Engleman, V. Wayne; Freeman, Sandra K.; Hanneke, Melanie L.; Shannon, Kristen E.; Nickols, Maureen A.; Steininger, Christina N.; Westlin, Marissa; Klover, Jon A.; Westlin, William; Nickols, G. Allen; Russell, Mark A.

CORPORATE SOURCE: Department of Medicinal Chemistry, Pfizer Global Research and Development, Ann Arbor, MI, 48105, USA

SOURCE: Bioorg. Med. Chem. Lett. (2006), 16(4), 845-849  
CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 144:254037

ED Entered STN: 08 Jan 2006

AB A series of 2,5-thiazoles, e.g. I [R = 3-FC<sub>6</sub>H<sub>4</sub>, 3,4-(MeO)<sub>2</sub>C<sub>6</sub>H<sub>3</sub>, 6-methoxy-3-pyridyl, 2-phenyl-5-thiazolyl, etc.], which are potent **antagonists** of the **integrin**  $\alpha\text{v}\beta 3$  and show selectivity relative to the other **integrins**, such as  $\alpha\text{IIb}\beta 3$  and  $\alpha\text{v}\beta 6$ , has been synthesized. These analogs were demonstrated to have high bioavailability relative to other relative heterocyclic analogs.

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L67 ANSWER 2 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 2

ACCESSION NUMBER: 2006:16560 HCAPLUS

DOCUMENT NUMBER: 144:254069

TITLE: Convergent, parallel synthesis of a series of  $\beta$ -substituted 1,2,4-oxadiazole **butanoic** acids as potent and selective  $\alpha\text{v}\beta 3$  receptor antagonists

AUTHOR(S): Boys, Mark L.; Schretzman, Lori A.; Chandrakumar, Nizal S.; Tollefson, Michael B.; Mohler, Scott B.; Downs, Victoria L.; Penning, Thomas D.; Russell, Mark A.; Wendt, John A.; Chen, Barbara B.; Stenmark, Heather G.; Wu, Hongwei; Spangler, Dale P.; Clare, Michael; Desai, Bipin N.; Khanna, Ish K.; Nguyen, Maria N.; Duffin, Tiffany; Engleman, V. Wayne; Finn, Mary Beth; Freeman, Sandra K.; Hanneke, Melanie L.; Keene, Jeffery L.; Klover, Jon A.; Nickols, G. Allen; Nickols, Maureen A.; Steininger, Christina N.; Westlin, Marisa; Westlin, William; Yu, Yi X.; Wang, Yaping; Dalton, Christopher R.; Norring, Sarah A.

CORPORATE SOURCE: Department of Chemistry, PfizerGlobal Research and Development, Ann Arbor, MI, 48105, USA

SOURCE: Bioorg. Med. Chem. Lett. (2006), 16(4), 839-844  
CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 144:254069

ED Entered STN: 08 Jan 2006

AB A series of 1,2,4-oxadiazoles, e.g. I [R<sub>1</sub> = H, R<sub>2</sub> = H, Me, HC.tplbond.C, Ph, 3-pyridyl, 2-methyl-5-thiazolyl, etc.; R<sub>1</sub> = Me, R<sub>2</sub> = Me, Ph, 3-pyridyl; R<sub>1</sub>R<sub>2</sub> = (CH<sub>2</sub>)<sub>4</sub>], which are potent **antagonists** of the

integrin  $\alpha v \beta 3$  and, in addition, show selectivity relative to the other  $\beta 3$  integrin  $\alpha IIb \beta 3$ , has been synthesized. In whole cells, the majority of these analogs also demonstrated modest selectivity against other  $\alpha v$  integrins such as  $\alpha v \beta 1$  and  $\alpha v \beta 6$ .

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L67 ANSWER 3 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 3

ACCESSION NUMBER: 2004:565087 HCAPLUS

DOCUMENT NUMBER: 141:123408

TITLE: Heteroarylalkanoic acids as integrin receptor antagonists

INVENTOR(S): Boys, Mark L.; Schretzman, Lori A.; Tollefson, Michael B.; Chandrakumar, Nizal S.; Khanna, Ish K.; Nguyen, Maria; Downs, Victoria; Mohler, Scott B.; Gesicki, Glen J.; Penning, Thomas D.; Chen, Barbara B.; Wang, Yaping; Khilevich, Albert; Desai, Bipinchandra N.; Yu, Yi; Wendt, John A.; Stenmark, Heather; Wu, Lisa; Huff, Renee M.; Nagarajan, Srinivasan R.; Devadas, Balekudru; Lu, Hwang-fun; Russell, Mark; Spangler, Dale P.; Parikh, Mihir D.; Clare, Michael

PATENT ASSIGNEE(S): Pharmacia Corporation, USA

SOURCE: PCT Int. Appl., 266 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004058254	A1	20040715	WO 2003-US40898	20031222
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2507699	AA	20040715	CA 2003-2507699	20031222
AU 2003299807	A1	20040722	AU 2003-299807	20031222
US 2005043344	A1	20050224	US 2003-743354	20031222
EP 1592421	A1	20051109	EP 2003-800081	20031222
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
BR 2003017600	A	20051129	BR 2003-17600	20031222
PRIORITY APPLN. INFO.:			US 2002-435467P	P 20021220
			WO 2003-US40898	W 20031222

OTHER SOURCE(S): MARPAT 141:123408

ED Entered STN: 15 Jul 2004

AB The present invention relates to pharmaceutical compns. comprising compds.

I [A = (un)saturated and/or (un)substituted 4-8 membered monocyclic or 7-12 membered bicyclic ring, containing 1 to 5 heteroatoms selected from the group consisting of O, N or S; ring A may further contain a carboxamide, sulfone, sulfonamide, or an acyl group; A1 = (un)saturated and/or (un)substituted 5-9 membered monocyclic or 8-14 membered polycyclic heterocycle containing at least one N; or A1 = substituted urea, iminourea or thiourea alicyclic or cyclic analog; Z1 = CH<sub>2</sub>, CH<sub>2</sub>O, O, NH, CO, S, SO, CHOH, SO<sub>2</sub>; Z2 = (un)substituted 1-5 carbon linker optionally containing one or more heteroatoms; alternatively Z1-Z2 may contain a carboxamide, sulfone, sulfonamide, alkenyl, acyl group, or aryl or heteroaryl ring; X = CO, SO<sub>2</sub>, S, O, substituted amine, substituted CH; Y = CO, SO<sub>2</sub>, substituted amine, etc.; Y5 = C or N; Y3 and Y4 independently = H, halo, (un)substituted-alkyl, -aryl, -alkene, etc.; or Y3 and Y4 together form a (un)saturated and/or (un)substituted 3-8 membered monocyclic or a 7-11 membered bicyclic ring optionally containing heteroatoms; or X and Y3 form a 3-7 membered monocyclic ring optionally containing heteroatoms; Rb = OH, alkoxy, arylamine, etc.], or a pharmaceutically acceptable salt thereof, methods of selectively inhibiting or antagonizing the  $\alpha\beta 3$  and/or the  $\alpha\beta 5$  integrin without significantly inhibiting the  $\alpha\beta 6$  integrin, and methods to prepare I. Thus, e.g., II was prepared in four steps with oxadiazole ring forming via cyclization reaction of amide oxime III with cyclic anhydride IV (preparation given). I antagonize  $\alpha\beta 3$  integrin with an IC<sub>50</sub> values ranging from 0.1 nM to 100  $\mu$ M in the 293-cell assay. Similarly, I also antagonized  $\alpha\beta 5$  integrin with an IC<sub>50</sub> values of < 50  $\mu$ M in the cell adhesion assay.

L67 ANSWER 4 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 5

ACCESSION NUMBER: 2001:923768 HCAPLUS

DOCUMENT NUMBER: 136:53681

TITLE: Preparation of cycloalkylalkanoic acids as integrin receptor antagonists

INVENTOR(S): Khanna, Ish Kumar; Clare, Michael; Gasiecki, Alan F.; Rogers, Thomas; Chen, Barbara; Russell, Mark; Lu, Hwang-Fun

PATENT ASSIGNEE(S): Pharmacia Corporation, USA

SOURCE: PCT Int. Appl., 171 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001096307	A2	20011220	WO 2001-US19104	20010615
WO 2001096307	A3	20020815		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
EP 1289960	A2	20030312	EP 2001-948363	20010615
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			

JP 2004525069 T2 20040819 JP 2002-510450 20010615  
 US 2004043988 A1 20040304 US 2003-311299 20030821  
 PRIORITY APPLN. INFO.: US 2000-211781P P 20000615  
 WO 2001-US19104 W 20010615

OTHER SOURCE(S): MARPAT 136:53681

ED Entered STN: 21 Dec 2001

AB The preparation of compds. [I; A = heteroaryl (e.g., pyridine, imidazole, thiazole, oxazole, benzimidazole, imidazopyridine, etc.); n = 0-2, etc.; R1 = H, alkyl, etc.; R2, R3, R4, R5 = alkyl, alkoxy, etc.], their pharmaceutically acceptable salts and compns., and methods of selectively inhibiting or antagonizing the  $\alpha\text{v}\beta 3$  and/or  $\alpha\text{v}\beta 5$  integrin, are described. Thus, a multi-step synthesis of the trifluoroacetate salt of 2-[4-[3-(2-pyridinylamino)propoxy]phenyl]cyclopropaneacetic acid (II) is given. Administration of I inhibits angiogenesis, tumor metastasis, tumor growth, osteoporosis, Paget's disease, humoral hypercalcemia of malignancy, retinopathy, macular degeneration, arthritis, periodontal disease, smooth muscle cell migration, including restenosis and atherosclerosis, and viral diseases.

L67 ANSWER 5 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:566608 HCAPLUS

DOCUMENT NUMBER: 141:123621

TITLE: Preparation of pyrazole derivatives as integrin receptor antagonists

INVENTOR(S): Penning, Thomas D.; Khilevich, Albert; Chen, Barbara B.; Gandhi, Preete; Wang, Yaping; Downs, Victoria; Boys, Mark L.; Russell, Mark; Spangler, Dale P.; Huff, Renee M.

PATENT ASSIGNEE(S): Pharmacia Corporation, USA

SOURCE: PCT Int. Appl., 113 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004058761	A1	20040715	WO 2003-US40630	20031219
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2507958	AA	20040715	CA 2003-2507958	20031219
AU 2003297409	A1	20040722	AU 2003-297409	20031219
US 2005004200	A1	20050106	US 2003-741860	20031219
EP 1572691	A1	20050914	EP 2003-814227	20031219
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003016875	A	20051025	BR 2003-16875	20031219
JP 2006513218	T2	20060420	JP 2004-563834	20031219
PRIORITY APPLN. INFO.:			US 2002-435168P	P 20021220



WO 2003-US40630

W 20031219

OTHER SOURCE(S): MARPAT 141:123621

ED Entered STN: 15 Jul 2004

AB Title compds. I [wherein M1 = heteroaryl, acyl, (un)substituted hydrocarbyl; R1 = O, CO, SOm, NHSO2, SO2NH, (un)substituted methylene or amino; m = 0-2; R4 = C or N; R5 = H, halo, (un)substituted hydrocarbyl, heteroaryl; R6 = an electron pair when R4 is nitrogen, or H, halo, (un)substituted hydrocarbyl, heterocyclo; or R4R5R6 = mono or bicyclic ring; X1 = O, CH2, CH2O, NH, CO, SOm, CH(OH), alkenyl, alkynyl; X2 = (un)substituted linker; X3 = heterocyclic; Z1 = H, HO, cyano, (un)substituted hydrocarbyl, heteroaryl; and pharmaceutically acceptable salts thereof] were prepared as **integrin** receptor **antagonists**. For example, 3-(1,3-benzodioxol-5-yl)-4-[1-methyl-5-[2-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)ethoxy]-1H-pyrazol-3-yl] **butanoic** acid (II) was given in a multiple-step synthesis starting from 2-aminonicotinaldehyde. The prepared title compds. I were tested for **inhibition** of  $\alpha v\beta 3$  and/or  $\alpha v\beta 5$  **integrin** receptors. Thus, I and their pharmaceutical compns. are useful for the treatment or **prevention** of conditions mediated by the  $\alpha v\beta 3$  or  $\alpha v\beta 5$  **integrin** receptor, such as tumor metastasis, solid tumor growth, angiogenesis, osteoporosis, humoral hypercalcemia of malignancy, smooth muscle cell migration, restenosis, atherosclerosis, macular degeneration, retinopathy, and arthritis (no data).

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L67 ANSWER 6 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:566607 HCAPLUS

DOCUMENT NUMBER: 141:123614

TITLE: Preparation of thiazoles, in particular thiazole **butanoic** acid derivatives, as **integrin** receptor **antagonists**

INVENTOR(S): Wendt, John A.; Stenmark, Heather; Wu, Lisa; Wang, Yaping; Chen, Barbara B.; Penning, Thomas D.; Downs, Victoria; Boys, Mark L.; Russell, Mark; Spangler, Dale P.

PATENT ASSIGNEE(S): Pharmacia Corporation, USA

SOURCE: PCT Int. Appl., 110 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004058760	A1	20040715	WO 2003-US40629	20031219
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2510084	AA	20040715	CA 2003-2510084	20031219

AU 2003297408	A1	20040722	AU 2003-297408	20031219
US 2005004189	A1	20050106	US 2003-741056	20031219
EP 1572690	A1	20050914	EP 2003-814226	20031219
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003016876	A	20051025	BR 2003-16876	20031219
PRIORITY APPLN. INFO.:			US 2002-435030P	P 20021220
			WO 2003-US40629	W 20031219

OTHER SOURCE(S): MARPAT 141:123614

ED Entered STN: 15 Jul 2004

AB Title compds. I [wherein R1 = CHR2, NR3, O, S, SO2, NHSO2, SO2NH, C(:O); R2 = H, OH, (un)substituted hydrocarbyl or alkoxy; R3 = H, (un)substituted hydrocarbyl, heteroaryl, or acyl; R4 = C, N; R5 = H, halo, (un)substituted hydrocarbyl, heteroaryl; R6 = electron pair when R4 = H; or R6 = H, halo, or (un)substituted hydrocarbyl; R7 = OH and derivs., SH and derivs., NH2 and derivs., etc.; Z1 = H, OH, CN, (un)substituted hydrocarbyl, heteroaryl; and pharmaceutically acceptable salts thereof] were prepared for selectively inhibiting or antagonizing the  $\alpha\text{v}\beta 3$  and/or  $\alpha\text{v}\beta 5$  integrins (vitronectin receptors). For example, condensation of 4-(1-methyl-1,2,3,4-tetrahydropyrido[2,3-b]pyrazin-6-yl)butanethioamide (11-step synthesis given) with Et 3-(1,3-benzodioxol-5-yl)-6-chloro-5-oxohexanoate in dioxane at reflux, followed by saponification of the in-situ formed ester using NaOH in EtOH, gave II. Selected  $\alpha\text{v}\beta 3$  and/or  $\alpha\text{v}\beta 5$  integrin antagonists I displayed AUC/oral dose ratios in the range of 1.8 - 6.8 when administered to rats. Thus, I and their pharmaceutical compns. are useful for the treatment of tumor metastasis, solid tumor growth, angiogenesis, osteoporosis, humoral hypercalcemia of malignancy, smooth muscle cell migration, restenosis, atherosclerosis, macular degeneration, retinopathy, and arthritis (no data).

L67 ANSWER 7 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:859471 HCAPLUS

DOCUMENT NUMBER: 143:115774

TITLE: Synthesis and tissue distribution of  $^{14}\text{C}$ -nonpeptide  $\alpha\text{v}\beta 3$  antagonists

AUTHOR(S): McKinnis, Bradley R.; Albin, Lesley A.; Doom, James P.; Gasiecki, Alan F.; Hotz, Kathy J.; Keene, Jeffery L.; Khanna, Ish K.; Kraus, Lori J.; Liley, Matt R.; Likos, John J.; Nagarajan, Srinivasan; Rogers, Thomas E.; Singh, Rajendra K.

CORPORATE SOURCE: Pfizer Global Research and Development, St. Louis, MO, USA

SOURCE: Synthesis and Applications of Isotopically Labelled Compounds, Proceedings of the International Symposium, 8th, Boston, MA, United States, June 1-5, 2003 (2004), Meeting Date 2003, 413-416. Editor(s): Dean, Dennis C.; Filer, Crist N.; McCarthy, Keith E. John Wiley & Sons Ltd.: Chichester, UK.

CODEN: 69FZAZ; ISBN: 0-470-86365-X

DOCUMENT TYPE: Conference

LANGUAGE: English

OTHER SOURCE(S): CASREACT 143:115774

ED Entered STN: 18 Oct 2004

AB Three peptidomimetic integrin  $\alpha\text{v}\beta 3$  antagonists, I (R = Me, 3-pyridyl; X =  $^{14}\text{CH}_2$ ) and II (X =  $^{14}\text{CH}_2$ ), are prepared; their antagonism of integrin  $\alpha\text{v}\beta 3$  and their distributions in the tissues of rats are determined.  $^{14}\text{C}$ -labeled 2-(3-hydroxypropylamino)pyridine-1-oxide is prepared from 2-chloropyridine N-oxide hydrochloride and 3-amino-3- $^{14}\text{C}$ -aminopropanol;

Mitsunobu coupling with p-hydroxyphenyl-substituted esters, **redn** of the N-oxide, and ester hydrolysis yields I (R = Me, 3-pyridyl; X = 14CH<sub>2</sub>) and II (X = 14CH<sub>2</sub>). I (R = Me; X = 14CH<sub>2</sub>) is generated in an attempted preparation of II (X = 14CH<sub>2</sub>); **reduction** of the N-oxide ester intermediate in the preparation of II (X = 14CH<sub>2</sub>) with palladium on carbon and cyclohexene in refluxing isopropanol leads to **reduction** of the N-oxide and cleavage of the cyclopropane ring rather than **reduction** of the N-oxide alone. **Reduction** of the N-oxide ester intermediate in the preparation of II (X = 14CH<sub>2</sub>) with triphenylphosphine and iron in refluxing acetic acid **reduces** the N-oxide without cleaving the cyclopropane. I (R = Me, 3-pyridyl; X = 14CH<sub>2</sub>) and II (X = 14CH<sub>2</sub>) are obtained with radiochem. purities of  $\geq 97.4\%$ . Tissue distribution, mass balance, and clearance studies for I (R = Me, 3-pyridyl; X = 14CH<sub>2</sub>) and II (X = 14CH<sub>2</sub>) are performed.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L67 ANSWER 8 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:923795 HCAPLUS

DOCUMENT NUMBER: 136:53749

TITLE: Preparation of heteroarylalkanoic acids as integrin receptor antagonists

INVENTOR(S): Nagarajan, Scrinivasan Raj; Khanna, Ish Kumar; Tollefson, Michael B.; Mohler, Scott B.; Chen, Barbara; Russell, Mark; Devadas, Balekudru; Penning, Thomas D.; Schretzman, Lori A.; Spangler, Dale P.; Boys, Mark Laurence; Chandrakumar, Nizal Samuel; Lu, Hwang-Fun

PATENT ASSIGNEE(S): Pharmacia Corporation, USA

SOURCE: PCT Int. Appl., 368 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001096334	A2	20011220	WO 2001-US19375	20010615
WO 2001096334	A3	20020912		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
US 2002133023	A1	20020919	US 2001-881913	20010615
US 6933304	B2	20050823		
EP 1289983	A2	20030312	EP 2001-948424	20010615
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
JP 2004511434	T2	20040415	JP 2002-510476	20010615
US 2004092497	A1	20040513	US 2003-311385	20030905
PRIORITY APPLN. INFO.:			US 2000-211781P	P 20000615
			US 2000-211782P	P 20000615

WO 2001-US19375

W 20010615

OTHER SOURCE(S): MARPAT 136:53749

ED Entered STN: 21 Dec 2001

AB Title compds. A1Z2Z1AXYY5(Y3)(Y4)CH2CORb [I; wherein ring A = (un)substituted 4-8 membered monocyclic or 7-12 membered bicyclic ring containing 1-4 heteroatoms, selected from O, N, or S; A1 = (un)substituted 5-9 membered monocyclic or 7-14 membered polycyclic heterocycle containing at least 1 N and optionally 1-4 heteroatoms or groups selected from O, N, S, SO<sub>2</sub>, or CO; Z1 = CH<sub>2</sub>, O, CH<sub>2</sub>O, NH, CO, S, SO, CH(OH), and SO<sub>2</sub>; Z2 = (un)substituted 1-5 C linker optionally containing 1 or more heteroatoms selected from O, S, and N; Z1Z2 may contain a carboxamide, sulfone, sulfonamide, alkenyl, alkynyl, acyl, or (un)substituted 5- or 6-membered (hetero)aryl; X = CHRe, NRf, O, S, SO<sub>2</sub>, or CO; Re = H, (cyclo)alkyl, alkoxy(alkyl), OH, alkynyl, alkenyl, haloalkyl, thioalkyl, or aryl; Rf = H, (halo)alkyl, aryl, or benzyl; Y = (CH<sub>2</sub>)p, CHRg, NRg, CO, or SO<sub>2</sub>; Rg = H, (halo)alkyl, alkoxyalkyl, alkynyl, (hetero)aryl, OH, alkoxy, or carboxyalkyl; p = 0-1; XY may contain acyl, alkyl, sulfonyl, amino, (thio)ether, carboxamido, sulfonamido, aminosulfonyl, or olefin; Y3 and Y4 = independently H, (halo)alkyl, halo, (hetero)aryl, hydroxyalkyl, alkynyl, etc.; Rb = X2Rh; X2 = O, S, or NRj; Rh and Rj = independently H, (ar)alkyl, acyl, or alkoxyalkyl; with provisos] and their pharmaceutically acceptable salts were prepared for selectively antagonizing the  $\alpha\beta 3$  and/or the  $\alpha\beta 5$  integrin without significantly antagonizing the fibrinogen IIB/IIIa integrin. For example, 3-(hydroxymethyl)benzonitrile was protected with 3,4-dihydro-2H-pyran (89%) and treated with HONH<sub>2</sub>•HCl to give the benzenecarboximidamide (98%). Cyclization with 3-methylglutaric anhydride in the presence of MeI (64%) and deprotection (98%) gave the Me 1,2,4-oxadiazolebutanoate (64%). Oxidation to the aldehyde, followed by reductive addition of 2-aminopyridine and workup, afforded the oxadiazolebutanoic acid (II). In vitronectin adhesion assays, I antagonized the  $\alpha\beta 3$  integrin and the  $\alpha\beta 5$  integrin with IC<sub>50</sub> values of 0.1 nM to 100  $\mu$ M and < 50  $\mu$ M, resp. I are useful for the treatment of tumor metastasis, solid tumor growth, angiogenesis, osteoporosis, humoral hypercalcemia of malignancy, smooth muscle cell migration, restenosis, atherosclerosis, macular degeneration, retinopathy, and arthritis (no data).

L67 ANSWER 9 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:923771 HCAPLUS

DOCUMENT NUMBER: 136:53683

TITLE: Preparation of dihydrostilbene alkanolic acid derivatives useful as vitronectin antagonists

INVENTOR(S): Rogers, Thomas; Clare, Michael; Fun Lu, Hwang; Russell, Mark; Malecha, James W.; Khanna, Ish Kumar; Penning, Thomas; Nagarajan, Srinivasan Raj

PATENT ASSIGNEE(S): Pharmacia Corporation, USA

SOURCE: PCT Int. Appl., 163 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001096310	A1	20011220	WO 2001-US19330	20010615
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				

CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM,  
 HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,  
 LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO,  
 RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ,  
 VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,  
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,  
 BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 2001052500	A1	20011220	US 2001-882647	20010615
AU 2001068490	A5	20011224	AU 2001-68490	20010615
US 2002099209	A1	20020725	US 2001-882137	20010615
US 6720315	B2	20040413		
EP 1289959	A1	20030312	EP 2001-946439	20010615
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004503540	T2	20040205	JP 2002-510453	20010615
US 6833366	B1	20041221	US 2003-657932	20030909
PRIORITY APPLN. INFO.:			US 2000-211780P	P 20000615
			US 2001-882137	A3 20010615
			WO 2001-US19330	W 20010615

OTHER SOURCE(S): MARPAT 136:53683

ED Entered STN: 21 Dec 2001

AB The preparation of [I; wherein the "A ring" = 4-8 membered monocyclic, or 7-12 membered bicyclic heteroarene; A1 = 5-9 membered monocyclic, or 7-12 membered polycyclic heterocycle; Z1 = CH<sub>2</sub>, CH<sub>2</sub>O, O, NH, CO, S, etc.; Z2 = 1-5 carbon linker optionally substituted with O, S, or N; X = alkyl, O, amino, CO, etc.; Y = substituted C; Ra = H, alkyl, alkenyl, etc.; R1 = H, alkyl, hydroxy, etc.; R2 = H, alkyl, etc.; R3 = H, alkyl, halogen, etc.], or a pharmaceutically acceptable salt or composition thereof, and methods of selectively  $\alpha\text{v}\beta 3$  inhibiting or antagonizing the  $\alpha\text{v}\beta 3$  and/or the  $\alpha\text{v}\beta 5$  integrin, are described. Thus, a multi-step preparation of 3-[[3-(2-pyridinylamino)propoxy]phenyl]propanoic acid II was given. Administration of I inhibits angiogenesis, tumor metastasis, tumor growth, osteoporosis, Paget's disease, humoral hypercalcemia of malignancy, retinopathy, macular degeneration, arthritis, periodontal disease, smooth muscle cell migration, including restenosis and atherosclerosis, and viral diseases.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L67 ANSWER 10 OF 11 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 4

ACCESSION NUMBER: 2006:29662 BIOSIS

DOCUMENT NUMBER: PREV200600040384

TITLE: Dihydrostilbene alkanolic acid derivatives.

AUTHOR(S): Rogers, Thomas [Inventor]; Clare, Michael [Inventor];  
 Lu, Hwang-Fun [Inventor]; Russell, Mark [Inventor];  
 Malecha, James W. [Inventor]; Khanna, Ish Kumar  
 [Inventor]; Penning, Thomas [Inventor];  
 Nagarajan, Srinivasan Raj [Inventor]

CORPORATE SOURCE: Ballwin, MO USA  
 ASSIGNEE: Pharmacia Corporation

PATENT INFORMATION: US 06833366 20041221

SOURCE: Official Gazette of the United States Patent and Trademark  
 Office Patents, (DEC 21 2004)  
 CODEN: OGUPE7. ISSN: 0098-1133.

DOCUMENT TYPE: Patent

LANGUAGE: English

ENTRY DATE: Entered STN: 28 Dec 2005

Last Updated on STN: 28 Dec 2005

ED Entered STN: 28 Dec 2005

Last Updated on STN: 28 Dec 2005

AB The present invention relates to a class of compounds represented by the Formula 1. or a pharmaceutically acceptable salt thereof, pharmaceutical compositions comprising compounds of the Formula 1, and methods of selectively **inhibiting** or **antagonizing** the  $\alpha(v)\beta(3)$  and/or the  $\alpha(v)\beta(5)$  **integrin**.

L67 ANSWER 11 OF 11 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2004:257549 BIOSIS

DOCUMENT NUMBER: PREV200400257507

TITLE: Dihydrostilbene **alkanoic** acid derivatives.

AUTHOR(S): Rogers, Thomas [Inventor, Reprint Author]; Clare, Michael [Inventor]; Lu, Hwang-Fun [Inventor]; Russell, Mark [Inventor]; Malecha, James W. [Inventor]; Khanna, Ish Kumar [Inventor]; Penning, Thomas [Inventor]; Nagarajan, Srinivasan Raj [Inventor]; Stenmark, Heather [Inventor]

CORPORATE SOURCE: Manchester, MO, USA

ASSIGNEE: Pharmacia Corporation

PATENT INFORMATION: US 6720315 20040413

SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Apr 13 2004) Vol. 1281, No. 2.  
<http://www.uspto.gov/web/menu/patdata.html>. e-file.  
ISSN: 0098-1133 (ISSN print).

DOCUMENT TYPE: Patent

LANGUAGE: English

ENTRY DATE: Entered STN: 12 May 2004

Last Updated on STN: 12 May 2004

ED Entered STN: 12 May 2004

Last Updated on STN: 12 May 2004

AB The present invention relates to a class of compounds represented by the Formula 1. ##STR1## or a pharmaceutically acceptable salt thereof, pharmaceutical compositions comprising compounds of the Formula 1, and methods of selectively **inhibiting** or **antagonizing** the  $\alpha\beta(3)$  and/or the  $\alpha\beta(5)$  **integrin**.

=&gt; file stnguide

FILE 'STNGUIDE' ENTERED AT 13:02:32 ON 30 MAY 2006

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AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: May 26, 2006 (20060526/UP).

=> d his ful

(FILE 'HOME' ENTERED AT 11:52:34 ON 30 MAY 2006)

FILE 'STNGUIDE' ENTERED AT 11:52:41 ON 30 MAY 2006

FILE 'ZCAPLUS' ENTERED AT 11:57:50 ON 30 MAY 2006  
E US2003-743354/APPS

L1 FILE 'HCAPLUS' ENTERED AT 11:58:09 ON 30 MAY 2006  
1 SEA ABB=ON PLU=ON US2003-743354/APPS  
SAVE TEMP L1 GEM354HCAAPP/A

FILE 'STNGUIDE' ENTERED AT 11:58:26 ON 30 MAY 2006

FILE 'HCAPLUS' ENTERED AT 11:58:33 ON 30 MAY 2006  
D SCAN

FILE 'STNGUIDE' ENTERED AT 11:58:39 ON 30 MAY 2006

L2 FILE 'WPIX' ENTERED AT 11:58:57 ON 30 MAY 2006  
1 SEA ABB=ON PLU=ON US2003-743354/APPS  
SAVE TEMP L2 GEM354WPIAPP/A

FILE 'STNGUIDE' ENTERED AT 11:59:20 ON 30 MAY 2006

FILE 'REGISTRY' ENTERED AT 12:00:49 ON 30 MAY 2006

L3 FILE 'HCAPLUS' ENTERED AT 12:00:52 ON 30 MAY 2006  
TRA PLU=ON L1 1- RN : 387 TERMS

L4 FILE 'REGISTRY' ENTERED AT 12:00:55 ON 30 MAY 2006  
387 SEA ABB=ON PLU=ON L3  
SAVE TEMP L4 GEM354REGAPP/A

FILE 'STNGUIDE' ENTERED AT 12:01:16 ON 30 MAY 2006

L5 FILE 'REGISTRY' ENTERED AT 12:01:30 ON 30 MAY 2006  
131 SEA ABB=ON PLU=ON L4 AND ?NAPHTHYRIDIN?/CNS  
L6 80 SEA ABB=ON PLU=ON L5 AND ?OXADIAZOL?/CNS  
L7 1 SEA ABB=ON PLU=ON L6 AND ?IODO?/CNS  
D SCAN

FILE 'STNGUIDE' ENTERED AT 12:02:14 ON 30 MAY 2006

L8 FILE 'REGISTRY' ENTERED AT 12:06:06 ON 30 MAY 2006  
1 SEA ABB=ON PLU=ON L6 AND I/ELS  
L9 1 SEA ABB=ON PLU=ON L5 AND I/ELS  
L10 6 SEA ABB=ON PLU=ON L4 AND I/ELS  
D SCAN  
SAVE TEMP L9 GEM354ES/A  
D SCAN L9

FILE 'STNGUIDE' ENTERED AT 12:08:14 ON 30 MAY 2006  
D QUE STAT L9

FILE 'REGISTRY' ENTERED AT 12:09:19 ON 30 MAY 2006  
D IDE L9

FILE 'STNGUIDE' ENTERED AT 12:09:20 ON 30 MAY 2006

L11 FILE 'HCAPLUS, TOXCENTER, USPATFULL' ENTERED AT 12:11:11 ON 30 MAY 2006  
3 SEA ABB=ON PLU=ON L9  
D SCAN  
SAVE TEMP L11 GEM354MULS1/A

FILE 'STNGUIDE' ENTERED AT 12:11:53 ON 30 MAY 2006  
D SAVED

L12 FILE 'LREGISTRY' ENTERED AT 12:12:27 ON 30 MAY 2006  
STR 724770-27-8

L13 FILE 'BEILSTEIN' ENTERED AT 12:13:09 ON 30 MAY 2006  
0 SEA SSS FUL L12  
SAVE TEMP L13 GEM354BEI1/A  
D QUE STAT

L14 FILE 'LREGISTRY' ENTERED AT 12:14:18 ON 30 MAY 2006  
STR L12

L15 FILE 'REGISTRY' ENTERED AT 12:14:43 ON 30 MAY 2006  
0 SEA SSS SAM L14  
D QUE STAT

FILE 'STNGUIDE' ENTERED AT 12:15:13 ON 30 MAY 2006

L16 FILE 'REGISTRY' ENTERED AT 12:15:55 ON 30 MAY 2006  
1 SEA SSS FUL L14  
SAVE TEMP L16 GEM354PSTR1/A

L17 0 SEA ABB=ON PLU=ON L16 NOT L9

L18 FILE 'BEILSTEIN' ENTERED AT 12:17:20 ON 30 MAY 2006  
0 SEA SSS FUL L14  
SAVE TEMP L18 GEM354BEI2/A

FILE 'STNGUIDE' ENTERED AT 12:18:03 ON 30 MAY 2006

L19 FILE 'CHEMINFORMRX' ENTERED AT 12:18:59 ON 30 MAY 2006  
0 SEA SSS SAM L14 ( 0 REACTIONS)  
D QUE STAT

L20 0 SEA SSS FUL L14 ( 0 REACTIONS)  
SAVE TEMP L20 GEM354CHM1/A

FILE 'STNGUIDE' ENTERED AT 12:20:12 ON 30 MAY 2006

L21 FILE 'MARPAT' ENTERED AT 12:20:15 ON 30 MAY 2006  
0 SEA SSS SAM L14  
D QUE STAT

L22 0 SEA SSS FUL L14  
SAVE TEMP L22 GEM354MAR1/A

FILE 'STNGUIDE' ENTERED AT 12:21:44 ON 30 MAY 2006  
D SAVED

L23 FILE 'REGISTRY' ENTERED AT 12:23:18 ON 30 MAY 2006  
1 SEA ABB=ON PLU=ON 724770-27-8/RN,CRN

L24 0 SEA ABB=ON PLU=ON L23 NOT L9

FILE 'STNGUIDE' ENTERED AT 12:23:45 ON 30 MAY 2006



FILE 'WPIX' ENTERED AT 12:24:13 ON 30 MAY 2006

```

SELECT L2 1- DCRE
L25      98 SEA ABB=ON  PLU=ON  (518960-0-0-0/DCSE OR 933801-0-0-0/DCSE OR
          933802-0-0-0/DCSE OR 933811-0-0-0/DCSE OR 933817-0-0-0/DCSE OR
          933818-0-0-0/DCSE OR 933824-0-0-0/DCSE OR 933834-0-0-0/DCSE OR
          933841-0-1-0/DCSE OR 933858-0-1-0/DCSE OR 933859-0-1-0/DCSE OR
          933862-0-1-0/DCSE OR 933865-0-1-0/DCSE OR 933866-0-1-0/DCSE OR
          933867-0-1-0/DCSE OR 933869-0-1-0/DCSE OR 933870-0-0-0/DCSE OR
          933874-0-1-0/DCSE OR 933875-0-1-0/DCSE OR 933876-0-1-0/DCSE OR
          933878-0-1-0/DCSE OR 933881-0-1-0/DCSE OR 933882-0-1-0/DCSE OR
          933883-0-1-0/DCSE OR 933884-0-1-0/DCSE OR 933898-0-1-0/DCSE OR
          933899-0-1-0/DCSE OR 933903-0-1-0/DCSE OR 933907-0-1-0/DCSE OR
          933915-0-0-0/DCSE OR 933919-0-0-0/DCSE OR 933920-0-0-0/DCSE OR
          933923-0-0-0/DCSE OR 933926-0-1-0/DCSE OR 933929-0-1-0/DCSE OR
          933933-0-1-0/DCSE OR 933934-0-0-0/DCSE OR 933936-0-1-0/DCSE OR
          933937-0-0-0/DCSE OR 933939-0-1-0/DCSE OR 933941-0-0-0/DCSE OR
          933946-0-0-0/DCSE OR 933952-0-1-0/DCSE OR 933961-0-1-0/DCSE OR
          933965-0-1-0/DCSE OR 933977-0-1-0/DCSE OR 933979-0-1-0/DCSE OR
          934001-0-0-0/DCSE OR 934006-0-0-0/DCSE OR 934007-0-0-0/DCSE OR
          934008-0-0-0/DCSE OR 934009-0-0-0/DCSE OR 934010-0-0-0/DCSE OR
          934013-0-0-0/DCSE OR 934014-0-0-0/DCSE OR 934022-0-1-0/DCSE OR
          934025-0-0-0/DCSE OR 934033-0-0-0/DCSE OR 934047-0-0-0/DCSE OR
          934061-0-0-0/DCSE OR 934062-0-0-0/DCSE OR 934064-0-0-0/DCSE OR
          934065-0-0-0/DCSE OR 934073-0-0-0/DCSE OR 934074-0-0-0/DCSE OR
          934075-0-0-0/DCSE OR 934077-0-0-0/DCSE OR 934078-0-0-0/DCSE OR
          934079-0-0-0/DCSE OR 934080-0-0-0/DCSE OR 934081-0-0-0/DCSE OR
          934082-0-0-0/DCSE OR 934083-0-0-0/DCSE OR 934085-0-0-0/DCSE OR
          934106-0-0-0/DCSE OR 934110-0-0-0/DCSE OR 934112-0-0-0/DCSE OR
          934116-0-0-0/DCSE OR 934117-0-0-0/DCSE OR 934123-0-0-0/DCSE OR
          934134-0-0-0/DCSE OR 934151-0-0-0/DCSE OR 934154-0-0-0/DCSE OR
          934158-0-0-0/DCSE OR 934159-0-0-0/DCSE OR
          D SCAN

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FILE 'STNGUIDE' ENTERED AT 12:25:32 ON 30 MAY 2006

FILE 'WPIX' ENTERED AT 12:26:09 ON 30 MAY 2006

```

L26      1 SEA ABB=ON  PLU=ON  L25 AND (C27 H33 I N4 O3)/MF
          D SCAN
          SELECT L26 1- DCSE
L27      1 SEA ABB=ON  PLU=ON  933801-0-0-0/KW
L28      0 SEA SSS SAM L14
          D QUE STAT
L29      1 SEA SSS FUL L14
L30      1 SEA ABB=ON  PLU=ON  L29/DCR
          SELECT L29 1- SDCN
L31      1 SEA ABB=ON  PLU=ON  RAEX6A/DCN
L32      1 SEA ABB=ON  PLU=ON  L27 OR L30 OR L31
          SAVE TEMP L32 GEM354WPI1/A

```

FILE 'STNGUIDE' ENTERED AT 12:29:48 ON 30 MAY 2006

FILE 'ZCAPLUS' ENTERED AT 12:30:08 ON 30 MAY 2006

```

L33      QUE ABB=ON  PLU=ON  BOYS, M?/AU
L34      QUE ABB=ON  PLU=ON  SCHRETZMAN, L?/AU
L35      QUE ABB=ON  PLU=ON  TOLLEFSON, M?/AU
L36      QUE ABB=ON  PLU=ON  CHANDRAKUMAR, N?/AU
L37      QUE ABB=ON  PLU=ON  KHANNA, I?/AU
L38      QUE ABB=ON  PLU=ON  NGUYEN, M?/AU
L39      QUE ABB=ON  PLU=ON  DOWNS, V?/AU
L40      QUE ABB=ON  PLU=ON  MOHLER, S?/AU

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L41      QUE ABB=ON  PLU=ON  GESICKI, G?/AU
L42      QUE ABB=ON  PLU=ON  PENNING, T?/AU
L43      QUE ABB=ON  PLU=ON  CHEN, B?/AU
L44      QUE ABB=ON  PLU=ON  WANG, Y?/AU
L*** DEL  QUE KHILEVICH, A?/U
L45      QUE ABB=ON  PLU=ON  KHILEVICH, A?/AU
L46      QUE ABB=ON  PLU=ON  DESAI, B?/AU
L47      QUE ABB=ON  PLU=ON  YU, Y?/AU
L48      QUE ABB=ON  PLU=ON  WENDT, J?/AU
L49      QUE ABB=ON  PLU=ON  STENMARK, H?/AU
L50      QUE ABB=ON  PLU=ON  WU, H?/AU
L51      QUE ABB=ON  PLU=ON  HUFF, R?/AU
L52      QUE ABB=ON  PLU=ON  NAGARAJAN, S?/AU
L53      QUE ABB=ON  PLU=ON  DEVADAS, B?/AU
L54      QUE ABB=ON  PLU=ON  LU, H?/AU
L55      QUE ABB=ON  PLU=ON  RUSSEL, M?/AU
L56      QUE ABB=ON  PLU=ON  SPANGLER, D?/AU
L57      QUE ABB=ON  PLU=ON  PARIKH, M?/AU
L58      QUE ABB=ON  PLU=ON  PHARMACIA/PA,CS,SO

```

FILE 'STNGUIDE' ENTERED AT 12:34:29 ON 30 MAY 2006

FILE 'HCAPLUS, MEDLINE, BIOSIS, PASCAL, JICST-EPLUS, CABA, LIFESCI,  
 DRUGU, DRUGB, VETU, VETB, WPIX, SCISEARCH, CONF, CONFSCI, DISSABS'  
 ENTERED AT 12:37:36 ON 30 MAY 2006

```

L59      194315 SEA ABB=ON  PLU=ON  (L33 OR L34 OR L35 OR L36 OR L37 OR L38 OR
L39 OR L40 OR L41 OR L42 OR L43 OR L44 OR L45 OR L46)
L60      83410 SEA ABB=ON  PLU=ON  (L47 OR L48 OR L49 OR L50 OR L51 OR L52 OR
L53 OR L54 OR L55 OR L56 OR L57)
L61      904 SEA ABB=ON  PLU=ON  (L59 OR L60) AND ?INTEGRIN?
L62      10520 SEA ABB=ON  PLU=ON  (L33 OR L34 OR L35 OR L36 OR L37) OR (L39
OR L40 OR L41 OR L42) OR (L45 OR L46) OR (L48 OR L49) OR (L51
OR L52 OR L53) OR (L55 OR L56 OR L57)
L63      215 SEA ABB=ON  PLU=ON  (L38 OR L43 OR L44 OR L47 OR L50 OR L54)
AND L58
L64      94 SEA ABB=ON  PLU=ON  (L62 OR L63) AND ?INTEGRIN?
L65      85 SEA ABB=ON  PLU=ON  L64 AND (?INTEGRIN?(L) (?ANTAGON? OR
?INHIBIT? OR ?PROHIBIT? OR ?BLOCK? OR STOP? OR DISRUPT? OR
INTERRUPT? OR CONTROL? OR MODERAT? OR MODULAT? OR ?REGULAT? OR
?PREVENT? OR ?REDUC? OR ?IMPED? OR ?SUPPRESS? OR REPRESS? OR
RETARD? OR SLOW?))
L66      21 SEA ABB=ON  PLU=ON  L65 AND (ALKANOIC? OR HETEROALKANOIC? OR
?BUTANOIC?)
L67      11 DUP REM L66 (10 DUPLICATES REMOVED)
ANSWERS '1-9' FROM FILE HCAPLUS
ANSWERS '10-11' FROM FILE BIOSIS
SAVE TEMP L67 GEM354MULINV/A

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FILE 'STNGUIDE' ENTERED AT 12:57:16 ON 30 MAY 2006

```

D SAVED
D QUE STAT L16
D QUE NOS L17
D QUE NOS L24
D QUE STAT L18
D QUE STAT L20
D QUE STAT L22
D QUE STAT L32
D QUE STAT L11

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FILE 'HCAPLUS, TOXCENTER, USPATFULL, WPIX' ENTERED AT 13:00:18 ON 30 MAY

2006

L68

2 DUP REM L11 L18 L20 L22 L32 (2 DUPLICATES REMOVED)  
ANSWER '1' FROM FILE HCAPLUS  
ANSWER '2' FROM FILE USPATFULL

FILE 'STNGUIDE' ENTERED AT 13:00:24 ON 30 MAY 2006

FILE 'HCAPLUS, USPATFULL' ENTERED AT 13:00:34 ON 30 MAY 2006  
D IBIB ED AB IND HITSTR

FILE 'STNGUIDE' ENTERED AT 13:00:35 ON 30 MAY 2006

FILE 'HCAPLUS, USPATFULL' ENTERED AT 13:00:45 ON 30 MAY 2006  
D IBIB AB HITSTR 2

FILE 'STNGUIDE' ENTERED AT 13:00:46 ON 30 MAY 2006  
D QUE STAT L67

FILE 'HCAPLUS, BIOSIS' ENTERED AT 13:02:10 ON 30 MAY 2006  
D IBIB ED AB L67 1-11

FILE 'STNGUIDE' ENTERED AT 13:02:12 ON 30 MAY 2006

FILE 'STNGUIDE' ENTERED AT 13:02:32 ON 30 MAY 2006

FILE HOME

FILE STNGUIDE  
FILE CONTAINS CURRENT INFORMATION.  
LAST RELOADED: May 26, 2006 (20060526/UP).

FILE ZCAPLUS

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FILE LAST UPDATED: 29 May 2006 (20060529/ED)

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FILE HCAPLUS

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FILE COVERS 1907 - 30 May 2006 VOL 144 ISS 23  
FILE LAST UPDATED: 29 May 2006 (20060529/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

#### FILE WPIX

FILE LAST UPDATED: 26 MAY 2006 <20060526/UP>  
MOST RECENT DERWENT UPDATE: 200634 <200634/DW>  
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,  
PLEASE VISIT:  
[http://www.stn-international.de/training\\_center/patents/stn\\_guide.pdf](http://www.stn-international.de/training_center/patents/stn_guide.pdf) <

>>> FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE  
<http://scientific.thomson.com/support/patents/coverage/latestupdates/>

>>> PLEASE BE AWARE OF THE NEW IPC REFORM IN 2006, SEE  
[http://www.stn-international.de/stdatabases/details/ipc\\_reform.html](http://www.stn-international.de/stdatabases/details/ipc_reform.html) and  
<http://scientific.thomson.com/media/scpdf/ipcrdwpi.pdf> <<<

#### FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 29 MAY 2006 HIGHEST RN 885947-35-3  
DICTIONARY FILE UPDATES: 29 MAY 2006 HIGHEST RN 885947-35-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

\*\*\*\*\*  
\*  
\* The CA roles and document type information have been removed from \*  
\* the IDE default display format and the ED field has been added, \*  
\* effective March 20, 2005. A new display format, IDERL, is now \*  
\* available and contains the CA role and document type information. \*  
\*  
\*\*\*\*\*

Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

## FILE TOXCENTER

FILE COVERS 1907 TO 30 May 2006 (20060530/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

The MEDLINE file segment has been updated with 2006 MEDLINE data and features. See HELP RLOAD for details.

TOXCENTER thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2006 vocabulary.

See <http://www.nlm.nih.gov/mesh/>

[http://www.nlm.nih.gov/pubs/techbull/nd05/nd05\\_med\\_data\\_changes.html](http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_med_data_changes.html)

[http://www.nlm.nih.gov/pubs/techbull/nd05/nd05\\_2006\\_MeSH.html](http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_2006_MeSH.html)

for a description of changes.

## FILE USPATFULL

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 30 May 2006 (20060530/PD)

FILE LAST UPDATED: 30 May 2006 (20060530/ED)

HIGHEST GRANTED PATENT NUMBER: US7055175

HIGHEST APPLICATION PUBLICATION NUMBER: US2006112473

CA INDEXING IS CURRENT THROUGH 30 May 2006 (20060530/UPCA)

ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 30 May 2006 (20060530/PD)

REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2006

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2006

## FILE LREGISTRY

LREGISTRY IS A STATIC LEARNING FILE

NEW CAS INFORMATION USE POLICIES, ENTER HELP USAGETERMS FOR DETAILS.

## FILE BEILSTEIN

FILE LAST UPDATED ON MARCH 15, 2006

FILE COVERS 1771 TO 2006.

**FILE CONTAINS 9,516,393 SUBSTANCES**

>>>PLEASE NOTE: Reaction Data and substance data are stored in separate documents and can not be searched together in one query. Reaction data for BEILSTEIN compounds may be displayed immediately with the display codes PRE (preparations) and REA (reactions). A substance answer set retrieved after the search for a chemical name, a compounds with available reaction information by combining with PRE/FA, REA/FA or more generally with RX/FA. The BEILSTEIN Registry Number (BRN) is the link between a BEILSTEIN compound and belonging reactions. For more detailed reaction searches BRNs can be searched as reaction partner BRNs Reactant BRN (RX.RBRN) or Product BRN (RX.PBRN).<<<

>>> FOR SEARCHING PREPARATIONS SEE HELP PRE <<<

\*\*\*\*\*

\* PLEASE NOTE THAT THERE ARE NO FORMATS FREE OF COST. \*

\* SET NOTICE FEATURE: THE COST ESTIMATES CALCULATED FOR SET NOTICE \*

\* ARE BASED ON THE HIGHEST PRICE CATEGORY. THEREFORE; THESE \*

\* ESTIMATES MAY NOT REFLECT THE ACTUAL COSTS. \*

\* FOR PRICE INFORMATION SEE HELP COST \*

\*\*\*\*\*

## NEW

- \* PATENT NUMBERS (PN) AND BABS ACCESSION NUMBERS (BABSAN) CAN NOW BE SEARCHED, SELECTED AND TRANSFERRED.
- \* NEW DISPLAY FORMATS ALLREF, ALLP AND BABSAN SHOW ALL REFERENCES, ALL PATENT REFERENCES, OR ALL BABS ACCESSION NUMBERS FOR A COMPOUND AT A GLANCE.

FILE CHEMINFORMRX

FILE LAST UPDATED: 8 MAR 2006 &lt;20060308/UP&gt;

>>> CAS Registry Numbers are available for  
substances prior to 1995 <<<

FILE MARPAT

FILE CONTENT: 1961-PRESENT VOL 144 ISS 22 (20060526/ED)

SOME MARPAT RECORDS ARE DERIVED FROM INPI DATA FOR 1961-1987

MOST RECENT CITATIONS FOR PATENTS FROM MAJOR ISSUING AGENCIES  
(COVERAGE TO THESE DATES IS NOT COMPLETE):

US	2006062725	23	MAR 2006
DE	102004045029	16	MAR 2006
EP	1634887	15	MAR 2006
JP	2006073583	16	MAR 2006
WO	2006045852	04	MAY 2006
GB	2416167	18	JAN 2006
FR	2875804	31	MAR 2006
RU	2270725	27	FEB 2006
CA	2518664	10	MAR 2006

Expanded G-group definition display now available.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

FILE MEDLINE

FILE LAST UPDATED: 27 MAY 2006 (20060527/UP). FILE COVERS 1950 TO DATE.

On December 11, 2005, the 2006 MeSH terms were loaded.

The MEDLINE reload for 2006 is now (26 Feb.) available. For details  
on the 2006 reload, enter HELP RLOAD at an arrow prompt (=>).  
See also:

<http://www.nlm.nih.gov/mesh/>  
[http://www.nlm.nih.gov/pubs/techbull/nd04/nd04\\_mesh.html](http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html)  
[http://www.nlm.nih.gov/pubs/techbull/nd05/nd05\\_med\\_data\\_changes.html](http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_med_data_changes.html)  
[http://www.nlm.nih.gov/pubs/techbull/nd05/nd05\\_2006\\_MeSH.html](http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_2006_MeSH.html)

OLDMEDLINE is covered back to 1950.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the  
MeSH 2006 vocabulary.

This file contains CAS Registry Numbers for easy and accurate  
substance identification.

FILE BIOSIS

FILE COVERS 1969 TO DATE.  
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNS) PRESENT  
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 24 May 2006 (20060524/ED)

FILE PASCAL

FILE LAST UPDATED: 29 MAY 2006 <20060529/UP>

FILE COVERS 1977 TO DATE.

>>> SIMULTANEOUS LEFT AND RIGHT TRUNCATION IS AVAILABLE  
IN THE BASIC INDEX (/BI) FIELD <<<

FILE JICST-EPLUS

FILE COVERS 1985 TO 30 MAY 2006 (20060530/ED)

THE JICST-EPLUS FILE HAS BEEN RELOADED TO REFLECT THE 1999 CONTROLLED  
TERM (/CT) THESAURUS RELOAD.

FILE CABA

FILE COVERS 1973 TO 3 May 2006 (20060503/ED)

This file contains CAS Registry Numbers for easy and accurate  
substance identification.

The CABA file was reloaded 7 December 2003. Enter HELP RLOAD for details.

FILE LIFESCI

FILE COVERS 1978 TO 12 May 2006 (20060512/ED)

FILE DRUGU

FILE LAST UPDATED: 29 MAY 2006 <20060529/UP>

>>> DERWENT DRUG FILE (SUBSCRIBER) <<<

>>> FILE COVERS 1983 TO DATE <<<

>>> THESAURUS AVAILABLE IN /CT <<<

FILE DRUGB

>>> FILE COVERS 1964 TO 1982 - CLOSED FILE <<<

FILE VETU

FILE LAST UPDATED: 02 JAN 2002 <20020102/UP>

FILE COVERS 1983-2001

FILE VETB

FILE LAST UPDATED: 25 SEP 94 <940925/UP>

FILE COVERS 1968-1982

FILE SCISEARCH

FILE COVERS 1974 TO 25 May 2006 (20060525/ED)

SCISEARCH has been reloaded, see HELP RLOAD for details.

FILE CONF

FILE LAST UPDATED: 23 DEC 2005 <20051223/UP>

FILE COVERS 1976 TO 2005.

<<< CONF IS NO LONGER BEING UPDATED AS OF JANUARY 2006 >>>

FILE CONFSCI

FILE COVERS 1973 TO 10 Apr 2006 (20060410/ED)

CSA has resumed updates, see NEWS FILE

FILE DISSABS

FILE COVERS 1861 TO 25 MAY 2006 (20060525/ED)

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